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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,950	09/07/2000	Jeremy S. De Bonet	11291.00012/GST	2338

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EXAMINER	
LIN, WEN TAI	

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/656,950	DE BONET ET AL.	
	Examiner	Art Unit	
	Wen-Tai Lin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-22 are presented for examination.

Claim Rejections - 35 USC § 103

2. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley [U.S. Pat. No. 6122757] in view of Srinivasan et al.(hereafter "Srinivasan") [U.S. Pat. No. 6411992].

3. Both Kelley and Srinivasan were cited in the previous office action.

4. As to claims 1, 9, 17-18 and 21, Kelley teaches the invention as claimed including: a method in a computer system for efficiently comparing two trinary logic representations [Abstract; Figs. 3-5; col.6, line 57 – col.7, line 14], comprising:

a) creating a first data structure (referred herein as a VALUE data structure) representative of a first set of properties [e.g., P1 pattern – see 415, Fig.4];

b) creating a second data structure (referred herein as a KNOWN data structure) representative of whether said first set of properties is known [e.g., M1 of Fig.4; i.e., the mask bits for P1 pattern];

c) creating a third data structure (referred herein as a TARGET data structure) representative of a target set of properties [e.g., P2 pattern of Fig.4];

d) creating a fourth data structure (referred herein as a WANT data structure) representative of whether said target set of properties is wanted [e.g., the mask bits for P2 pattern]; and

e) comparing said first, second, third, and fourth data structures using bit- wise binary operations to determine whether said first set of known properties are wanted as a target set of properties [540, Fig.5; 615-628, Fig.6].

Kelly does not specifically teach that the first set of properties is related to a user; the target set of properties is related to an audio element; and that the audio element is stored in a cache memory upon determining that the first set of known properties are wanted as the target set of properties.

However, in an broadcasting application Srinivasan teaches personalizing broadcast of commercials [i.e., the target set of properties relating to the audio elements] to viewers according to demographic information [i.e., the first set of properties relating to the viewers], wherein the commercials are selected and scheduled based on demographic information (which obviously include age, sex, locations, and marital status, e tc., due to the need for matching up various advertisements–see, e.g., Fig.20) gathered online [col.5, lines 23-31; col.9, lines 1-10].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Kelley's efficient matching technique in the system of

Srinivasan for dynamically determining the appropriate commercials in accordance with the demographic information gathered on line because the combined teachings could lead to a faster, individualized multimedia broadcasting.

Further, although Kelly and Srivivasan do not specifically teach storing the selected audio element in a cache. However, storing remotely accessed data in a local cache is well known in various network applications. It would have been obvious to store Kelly and Srivivasan's selected commercial elements in the broadcasting server's local cache because the same commercial elements may be repeatedly used in the subsequent breaks.

5. As to claims 2-3, Kelley further teaches that said bit-wise binary operation are performed according to the Boolean equation:

(not WANT) or (KNOWN and ((TARGET xor VALUE))), which is equivalent to the Boolean equation:

(not WANT) or (KNOWN and ((TARGET and VALUE) or ((not TARGET) and (not (VALUE)))

[Note that this is an inherent property to Kelley's pattern matching when considering the fact that two mask-filtered patterns are "equal" when all of their corresponding bits are equal (i.e., resulting all "ones" after a bit-wise "exclusive nor" operation between the two mask-filtered patterns].

6. As to claims 4-8, Kelley does not specifically teach the length of said first, second, third, and fourth data structures. However, in the example at col.6, line 23 – col.7, line 6 and Fig.4, Kelley uses different number of bits or computer words to represent the states of a parameter (or property). It would have been obvious to one of ordinary skill in the art at the time the invention was made to dynamically pack these logical states in accordance with the length of the computer words because Kelley teaches an objective of minimizing the number of pattern matching comparisons [Abstract].

7. As to claims 10-16, 19 and 22 since the features of these claims can also be found in claims 1-9, 17-18 and 21, they are rejected for the same reasons set forth in the rejection of claims 1-9, 17-18 and 21 above.

8. Applicant's arguments filed on 6/13/2005 for claims 1-22 have been fully considered but they are not deemed to be persuasive. Specifically, Applicant argues that:

1. Kelly does not teach or suggest "creating" four separate data structures as recited in claim 1; and Kelly's pattern matching is not directed to "determining whether a set of known properties are wanted as a target set of properties;"

2. Kelly and Srivivasan relate to completely separate and dissimilar subject matter; and Srivivasan's process simply involves pulling commercial off tables indicating

a potentially corresponding demographic, rather than disclosing whether the audio element should be transmitted to the remote listener.

9. The examiner respectfully disagrees with Applicant's arguments:

1. with respect to point 1: (i) all of Kelly's patterns have to be created at certain point of times; (ii) although in the context of patent matching the set of "known properties" and "target properties" are simply two sets of patterns to be matched to find whether some "target patterns" can be found in the set of "known patterns", it becomes clear when applying Kelly's technique in Srivivasan's system, wherein the "known properties" are derived from a set of predefined demographic categories and its related commercials, while the "target patterns" are determined (as a result of pattern matching) online based on the actual demographic information against selectable commercials.

2. with respect to point 2: it's no peculiar that Kelly's independently derived pattern matching technique is directly applicable to Srivivasan's system, just as a wide variety of independently derived processing techniques have been widely utilized in numerous applications. Further, it is noted that Srivivasan's commercial scheduling tables (such as Figs. 15-16) are results of matching selectable commercials with the demographic categories gathered online, during which determination is made as to which commercial should be transmitted to a particular group of remote listeners.

For at least the above reasons, it is submitted that the prior art of record reads on the claims.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571) 272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571)273-8300 for official communications; and

(571)273-3969 for status inquires draft communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

July 26, 2005

Wen-Tai Lin
7/26/05